Unique Pointer Exercises

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std::unique_ptr

- Briefly describe how std::unique_ptr is implemented
- In terms of memory usage and efficiency, how does unique_ptr compare to traditional pointers?

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std::unique_ptr and RAII

- Explain how unique_ptr follows the principles of RAII

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unique_ptr initialization

- Write a simple program that creates and initializes a unique_ptr object and performs some operations on it
- What changes would you need to make your program compile under C++11?
- (Optional) Put your compiler into C++11 mode and check your answer to the previous question

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Returning unique_ptr

- What happens when a unique_ptr is returned from a function?

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Returning unique_ptr

- What are the advantages of returning unique_ptr instead of a traditional pointer?

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Returning unique_ptr instance

- Write a function which creates a unique_ptr local variable which is returned by the function
- Write a program that calls the function and prints out the data in the returned object

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